TECHNICAL NOTE	Number	553
DATE: 7-Jul-00	Issue	1

TITLE: fex21 Battery Life Performance

ABSTRACT: Performance of the fex21 NiMH battery pack.

Test Objectives
The objective was to test the current consumption of the fex21 at room temperature. Based on the test results the expected battery life was calculated.

The test was designed to measure the current consumption on standard build fex21's. Therefore test did not include the Barcode Scanner, Compact Flash, PC Cards or any other parasitic devices.

Power supply left for 30 seconds prior to reading current. Battery voltage 5.08V to ensure that the reading was stable and representative.

Test Results

Status	Current (mA)					
	Mono	Mono + EL	STN EL=min	STN EL=max	Trans EL=min	Trans EL=max
Standby	2	2	2	2	2	2
Idle	73	178	190	330	90	325
Pen active	180	285	302	444	202	440
Keyboard active	192	299	309	451	211	453
Application running	215	315	300	445	204	440

Status	Battery life (Hours) = 1600/Current					
	Mono	Mono + EL	STN EL=min	STN EL=max	Trans EL=min	Trans EL=max
Standby	800.00	800.00	800.00	800.00	800.00	800.00
Idle	21.92	8.99	8.42	4.85	17.78	4.92
Pen active	8.89	5.61	5.30	3.60	7.92	3.64
Keyboard active	8.33	5.35	5.18	3.55	7.58	3.53
Application running	7.44	5.08	5.33	3.60	7.84	3.64

The fex21 is designed for use with NiMH batteries therefore testing was not performed with Alkaline cells. However, based on the use of 4xAA cells providing a typical battery capacity of 3000mAh.an alkaline battery pack would be expected to provide up to 20hours at 20C on a mono fex21. It should be noted that battery life varies greatly dependant upon temperature.

As mentioned above, the fex21 is designed for use with NiMH cells, it is not recommended that alkaline cells be used where the current drawn is excessive i.e. (when a radio or similar card is fitted etc...).

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